



(Billing Code: 4150-31)

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

SUMMARY: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Baoyan Xu, M.D., Ph.D., National Heart, Lung, and Blood Institute, National Institutes of Health: Based on allegations made by readers of a published paper,<sup>1</sup> additional review by the National Institutes of Health (NIH) and ORI, and a limited admission by the Respondent that “some better looking strips were repeatedly used as representatives for several times [sic],” ORI found that Dr. Baoyan Xu, formerly a Postdoctoral Fellow, Hematology Branch, Systems Biology Center, National Heart, Lung, and Blood Institute (NHLBI), NIH, and currently at the Institute of Infectious Diseases, Southwest Hospital, Third Military Medical University, Chongqing, China, engaged in research misconduct in research supported by intramural research at NHLBI, NIH.

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<sup>1</sup>Xu, B., Zhi, N., Hu, G., Wan, Z., Zheng, X., Liu, X., Wong, S., Kajigaya, S., Zhao, K., Mao, Q., & Young, N.S. “Hybrid DNA virus in Chinese patients with seronegative hepatitis discovered by deep sequencing.” *Proc. Natl. Acad. Sci. (US)* 110(25):10264-10269; hereafter referred to as the “*PNAS* paper.”

The questioned research involves a Western blot analysis of IgM and IgG antibodies from Chinese subjects in patients with non-A-E hepatitis and control subjects to test reactivity towards a newly discovered virus. Analysis of Figure 6 of the published paper and Figure S4 of the online supplemental information identified thirteen pairs of Western blot bands which had a common origin yet were labeled as from different subjects and usually as detecting a different class of immunoglobulin. Specifically the following pairs were shown to match using forensically useful tools in Photoshop. Each represent a falsification in one or both of the figures as indicated in the table:

Identity of Strips	Located in:
A1 IgM/ F1 IgG	Fig. 6 & Fig. S4
B6 IgM/E1 IgM	Fig. 6 & Fig. S4
D7 IgM/A11 IgG	Fig. 6 & Fig. S4
G3 IgM/H4IgG	Fig. S4
H9 IgM/F4 IgG	Fig. S4
A4 IgM/E2 IgG	Fig. S4
A5 IgM/B9 IgM	Fig. S4
C9 IgG/C6 IgM	Fig. S4
D11 IgM/H11 IgG	Fig. S4
D5 IgM/A1 IgG	Fig. S4
A10 1GM/F7 IgG	Fig. S4
C11 1gM/E9 IgG	Fig. 6
F3 IgG/E9 IgM	F3 in S4/E9 in Fig. 6

The Respondent agreed to correction of Figures 6 and S4 of the *PNAS* paper.

Dr. Xu has entered into a Voluntary Settlement Agreement and has voluntarily agreed for a period of three (3) years, beginning on December 6, 2013:

- (1) that prior to the submission of an application for U.S. Public Health Service (PHS) support (including NIH support) for a research project on which the Respondent's participation is proposed, and prior to Respondent's participation in any capacity on PHS-supported research, Respondent shall ensure that a plan for supervision of her duties is submitted to ORI for approval; the supervision plan must be designed to ensure the scientific integrity of Respondent's research contribution; Respondent agrees that she shall not participate in any PHS-supported research until such a supervision plan is submitted to and approved by ORI; Respondent agrees to maintain responsibility for compliance with the agreed-upon supervision plan;
- (2) that any institution employing her shall submit, in conjunction with each application for PHS funds, or report, manuscript, or abstract involving PHS-supported research in which Respondent is involved, a certification to ORI that the data provided by Respondent are based on actual experiments or are otherwise legitimately derived, that the data procedures, and methodology are accurately reported in the application, report, manuscript, or abstract, and that the text in

such submission is her own or properly cites the source of copied language and ideas; and

- (3) to exclude herself voluntarily from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant.

FOR FURTHER INFORMATION CONTACT:

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David E. Wright,  
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Office of Research Integrity

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